

CLAIMS

1. A method for congestion control in the cells (C₁-C₆;C₇-C₉) of a cellular telecommunication system comprising

5 a plurality of radio base stations (RBS₁-RBS₃) each of which serving one or more of said cells and at least one of said cells being congested,

a plurality of user equipments (UE₁-UE₄) at least one of which located in a congested cell,

10 at least one centralised control unit to which said radio base stations are connected,

c h a r a c t e r i s e d b y

broadcasting in said congested cells messages indicating call admission information for at least one of the carrier
15 frequencies that are applied within the accessible area of the user equipments located in said congested cells.

2. Method according to claim 1,

c h a r a c t e r i s e d b y

presenting said call admission information to the user
20 equipments located in a congested cell by means of indicating restricted accesses to at least one of the carrier frequencies.

3. Method according to claim 1,

c h a r a c t e r i s e d b y

25 presenting said call admission information to the user equipments in a congested cell by means of indicating permitted accesses to at least one of the carrier frequencies.

4. Method according to claim 2 or 3,

c h a r a c t e r i s e d b y

presenting call admission information for a carrier
5 frequency as call admission information for the set of
neighbourhood cells that apply said carrier frequency.

5. Method according to claim 1,

c h a r a c t e r i s e d b y

presenting call admission information in a congested cell by
10 means of a list comprising carrier frequency for each of its
neighbourhood cells.

6. Method according to claim 5,

c h a r a c t e r i s e d b y

that said list also comprising congestion status for at
15 least one of its neighbouring cells.

7. Method according to any of the preceding claims,

c h a r a c t e r i s e d b y

retrieving said admission information from the radio network
controller as the centralised control unit.

20 8. Method according to any of the preceding claims,

c h a r a c t e r i s e d b y

storing said admission information in the radio base
stations.

9. A method for congestion control in the cells (C₁-C₆;C₇-C₉) at call set up in a cellular telecommunication system comprising

5 a plurality of radio base stations (RBS₁-RBS₃) each of which serving one or more of said cells and at least one of said cells being congested,

a plurality of user equipments (UE₁-UE₄) at least one of which is located in a congested cell,

10 at least one centralised control unit (RNC) to which said radio base stations are connected,

c h a r a c t e r i z e d by the following steps

- a) defining a power threshold value (P_{thr}) for the total interference level of said congested cell (C₃),
- 15 b) comparing (22) the total uplink interference level with said threshold value, and if said total uplink interference level exceeds said threshold value,
- c) retrieve (23) call admission information about at least one neighbouring cell which is ready to accept a call
- 20 set up information from said user equipment (UE₃), and
- d) broadcast (24) said call admission information.

25 10. A method for congestion control in the cells (C₁-C₆;C₇-C₉) at call set up in a cellular telecommunication system comprising,

a plurality of radio base stations (RBS₁-RBS₃) each of which serving one or more of said cells and at least one of said cells being congested,

30 a plurality of user equipments (UE₁-UE₄) at least one of which is located in a congested cell,

at least one centralised control unit (RNC) to which said radio base stations are connected,

c h a r a c t e r i z e d by the following steps

- 5 a) analysing (31) a received and broadcasted call admission
information for a certain cell; and
- b) requesting (35) a call set-up in an unrestricted
neighbour cell if access restriction is broadcasted (33)
for said cell.

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